Serial No. 10/661,206 Examiner: Harry B. Tanner
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)

2. (Previously Presented) The method according to claim 17, wherein the control actuator is a variable speed compressor.

3. (Previously Presented) The method according to claim 17, wherein the control actuator is a refrigerant flow rate control valve.

4. (Previously Presented) The method according to claim 17, in which the control signals are temperature signals indicative of a temperature error between an actual temperature and a target temperature in each of the at least two compartments, wherein such temperature signals depend on present, past and estimated future temperature errors.

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) The refrigerator according to claim 18, wherein the control actuator is one of a variable speed compressor, a linear compressor, or a compressor in which the cooling capacity thereof can be controlled.

8. (Previously Presented) The refrigerator according to claim 18, wherein the control actuator is a refrigerant flow rate control valve.

9. (Cancelled)

10. (Previously Presented) The refrigerator according to claim 18, wherein the refrigerator control signals responsive to cooling demands of the respective compartments contain

temperature error.

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) The method according to claim 17, wherein the control actuator is a valve for controlling the flow rate of the refrigerant, the above signals being indicative of a temperature difference across each evaporator.

14. (Previously Presented) The method according to claim 13, wherein said valve is adapted to deliver the refrigerant in one of the evaporators corresponding to the compartments, and comprising the further step of adjusting the flow rate for the evaporator supplied with refrigerant.

15. (Previously Presented) The refrigerator according to claim 18, wherein the control actuator is a valve for controlling the flow rate of the refrigerant, the above signals being indicative of a temperature difference across each evaporator.

16. (Previously Presented) The refrigerator according to claim 15, wherein said valve is adapted to deliver the refrigerant in one of the evaporators corresponding to the compartments, the flow rate being adjustable for the evaporator supplied with refrigerant.

17. (Previously Presented) A method for controlling a refrigerator having a control actuator and at least two compartments cooled to respective temperatures and comprising sensor devices for generating control signals responsive to cooling demands of the respective compartments, the method comprising the steps of:

generating a signal indicative of the total cooling demand on the basis of the sum of each compartment cooling demand;

using the signal to drive the control actuator according to the total cooling demand;

directing a refrigerant or a cooling-air flow to one of the at least two compartments; and

generating an auxiliary signal indicative of the direction of refrigerant or cooling-air flow on the basis of the difference between signals responsive to cooling demands of the at least two compartments.

18. (Previously Presented) A refrigerator comprising:

at least two compartments cooled to respective temperatures; and

a refrigerator control system comprising:

sensor devices for generating refrigerator control signals responsive to cooling demands of each of the at least two compartments, and

a valve for directing a refrigerant or a cooling-air flow to one of the at least two compartments;

wherein the refrigerator control system is adapted to issue a signal indicative of the total cooling demand on the basis of the sum of each compartment cooling demand, such signal being used to drive the valve according to such total demand, and the direction of refrigerant or cooling-air flow in one of the at least two compartments on the basis of the difference between compartment cooling demands.